854 baby and mattress were both lashed to it by means of one set of cords. The cradle frame
335 (with its permanent mat) was called a'hɨ́lɨč; the separate mat (mattress), even when the infant slept in it, was still called mat (ṭɨ́ñi, the usual word for a tule mat). Such a cradle is shown by Kroeber.[203]

If the cradle needed a hood, a broad band of tules, vertically twined about every inch, was fastened on as an addition. Apparently it was not thought of as an integral part of a normal cradle.

[177] The fan-shaped hood and lattice-twined cradle of willow are a recent introduction from the Mono. This information on cradles from M.L., Wukchumni, and M.S., Yaudanchi.)

According to M.L. and K.G. the forked-frame cradle was lathed differently for girls and boys; the boys' cradle had two crosspieces, the girls' but one. The single crosspiece arrangement permitted a bulging of the soft mat so the baby girl's buttocks would not be confined and would grow large. It is to be noted that no such arrangement is made in the recent twined-frame cradles. These, however, carry markings in accordance with the sex of the occupant, zigzag for boys and diamond for girls.

MONEY, NUMERAL SYSTEM

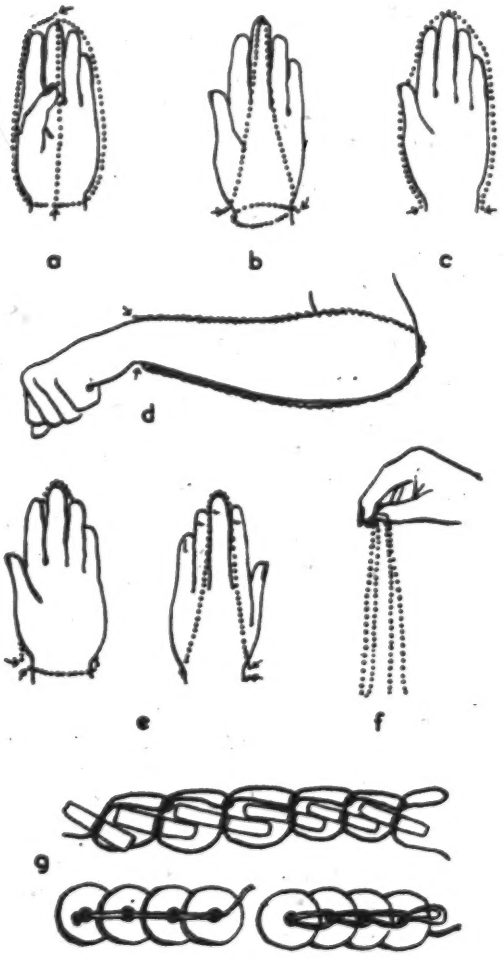
436 The foothill people probably never manufactured money, although the intermediate Gawia would do so when they could obtain the raw material -- unbroken clamshells. A few pieces could be made out of the freshwater oyster shells available at Woodlake and in the slough region, but the greater part of the shell was said to be "too rough." Clamshells and money came from the Chumash, Salinan, and perhaps
[439] Costanoan peoples, passing through the hands of the intervening lake and valley tribes who in turn bought mountain and foothill products -- bows, fire and digging sticks, salt, and fine baskets. The various shell moneys were as follows: home'tɨn (humna, humana, pl.), a long tube (1-1/2 to 2-1/2 inches) made from the hinge of large clamshells; koikoi:č, a short tube (1/2-inch) of white, probably also a "hinge" and used in ornamental belts; močo'ko, the small disc of clamshell which, in strings, was the common currency. European beads have
[177] acquired Yokuts names: in Wukchumni, hoi'yo is a small red glass bead;[204] and tedi'diduš is a glass bead with the surface planed to represent cut facets.

436 The descriptions of the method of measur-
804 ing strings of clamshell discs and the values
435

[203] Ibid., pl. 40, m; mattress, pl. 40, n.

[204] Called in English "pomegranate seeds" by M.P.: pomegranate trees are grown abundantly in the Visalia-Lemon Cove district.

436 804 435 attached to them differ slightly from informant to informant (fig. 14, a, b). The čok, the measurement around the hand, all informants agree, was equivalent to 5 cents. Other values were about as follows: 2-1/2 čok was called hista''a and equaled 10 cents; 2 hista'a equaled 20 cents. A single strand which reached from the wrist around the elbow and back was valued at $2.00, but a continuously half-hitched strand covering the same distance



[284]

Fig. 14. Bead money measurements. a, b, d, Wukchumni. c, Kechayi. e, f, Waksachi. g, method of half-hitching beads together.

435 436 804 was $5.00 (fig. 14, d). This means half-hitched or "chain-stitch" loops in the already strung length of discs, which nearly tripled the quantity of a plain length from wrist around elbow and back to wrist.[205] A cylindrical bead called humna was worth twenty-five cents.

535 465 The participants and singers in a ritual like the mourning ceremony or an ordinary pleasure dance would be given about 1/2 čok in payment by spectators. There was no fixed amount: if a person really could not afford to give more than a few beads he was not thought miserly. At times of display or for payment of individual performers, as at the death of Huhuna in the Huhuna Dance, long strings of money were thrown down.

556 A definite attempt to accumulate wealth was made by chiefs, shamans, and probably others who hoped to acquire prestige. Even when money was not the medium of exchange, value for value was the expectancy, not, however, with the shrewd, mercenary motivation of receiving, but with the courteous, generous motivation of giving, and maintaining moral status thereby.[206]

436 804 Kroeber, in a general reference to money,[207] states that the unit of measurement in the north was the chok, one and a half times the circumference of the hand. In the south the chok was somewhat shorter, and was reckoned as half the hista, twice the circumference of the hand.

Powers gives a somewhat different evaluation, which may have been the rate of his day.[208]

The usual shell-money is used among them, and a string of it reaching from the point of the middle finger to the elbow is valued at 25 cents. A section of bone [sic], very white and polished, about two and a half inches long, is sometimes strung on the string and rates at twelve and one-half cents.

Numerals

802
1. yɛt
2. po ˜noi
3. so ´pːn
4. ha ´po ˜ni
5. yu ´tsːnuk
6. tu ´dipi
7. no ´mčːn
8. mo ´˜nus
9. no ´nːp
10. ṭi ´´uv

[172]

[205] A half-hitched string with a bead on each loop was a method of bead-stringing exemplified in Pueblo II material from Nevada (vide Cody, Simply Strung). This method may account for the "shingled" beads found with a bear burial in the San Joaquin Valley (Heizer and Hewes, Animal Ceremonialism, 589).

[431 576] [206] Taking small gifts of cigarettes or candy to old Yokuts people presented a problem to the recorder because of their quiet insistence upon a return of some kind; refusal to accept a gift in exchange would be a subtle offense.

[207] Handbook, 498.

[208] p. 375.

263 439 to three-quarters of an inch in diameter, carrying them in burden baskets. The salt was
263 paid for in baskets or shell money. A quantity of salt about as large as a pine cone would be
435 worth 50 cents in American money, in native terms, a basket about the same size (as a pine
[804] cone) or a kelan of beads (a strand the circumference of the flat hand). The Mono came over several times a year.

263 Rock salt was ground to varying degrees of fineness and eaten with meat, nuts, or seeds, but not with acorns. Rock salt to be eaten with acorns was "burned black" first. A layer of salt was covered with hot ashes, then pounded in an acorn hole and mixed with a certain "grass" that grows in or at the edges of the river. The grass and salt were mashed together then formed into balls about six inches thick. Water was added if needed to make it stick together. The grass was wrapped around the balls, making a thick covering. Several such balls were put in a hole filled with very hot ashes and left all night. In the morning the balls, from which the grass wrapping had burned, were dug out and brushed hard with a soaproot brush. A ball might be struck a blow and the pieces given to various people. Three to five balls would be made at a time, which would last an average family a whole year. [Just how this type of salt was used with acorns was not stated. -- A.H.G.]

258 263 The salt called 'alit' was derived from salt grass which is covered with a white incrustation when growing. It was gathered by hand, spread to dry on flat rocks, then pounded in a mortar hole. Then it was winnowed from a circular winnowing tray, the grass particles wafting out and the salt grains remaining. The salt was dampened and pressed into balls, but these were not baked. The balls were broken as needed for use. This salt was eaten with clover and sour berries; if it was unobtainable, then rock salt was used.

The Chukchansi "went to the plains to scrape a sort of alkali off the ground," says Kroeber.[93]

Beverages

272 [423] 222 When manzanita berries are nearly ripe, women specify certain bushes as theirs, said J.R., and no one else can take the berries from them.[94] When the berries were thoroughly ripe, the ground under a bush was raked clean of all leaves and twigs, until the ground was bare. The woman took a long pole and, standing close to the bush, knocked all the berries to the ground. Then she took a flat short stick to

[93] Handbook, 530.

[94] It is not clear whether a woman claimed the same bushes each year or specified them anew according to the crop promised by various bushes. -- A.H.G.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 191 a] Chuckchansi

436 dollar:[115] The informants were uncertain about
321 the material, merely saying that the beads were made far off at the ocean. Later N.W. said a string of these beads, which would encircle the flat hand, was worth 50 cents. This standard
[804] measurement of beads, the circumference of the flat hand, was called kelan or k'ečan.

hakemesha: darkish red, white center, 1/4-in. long, 1/8 in. in diameter, though Emma Pumpkin said they "used to be about 3 inches long". These were said to be of "a bone naturally white inside and red outside." Thrall thought they looked like china.

liǎaniu: blue, looked like glass with cut facets. Informants claimed they were "some kind of bone that lives in the ocean" and that the facets were made by being cut with obsidian.

Unnamed: black inside, brownish red out-
[323] side. Thrall thought these looked like baked clay. One was pinkish inside and speckled red outside, which the informant said happened when the bead was burned [fired clay or in cremation?]. These beads were pointed out as especially old.

A dark green bead which came from the sea was described by J.R. He said these were strung with long white beads in between "to make it pretty and hold the beads together." He said this cylindrical bead was a certain rabbit bone, long, straight, hollow, and white (possibly the clamshell hinge; possibly a local substitute. -- A.H.G.). A length of bead money which was measured from the center of the wrist
[804] around the edge of the extended hand was worth a fixed sum. Such money, in definite units, was used to pay for baskets and for any object, services, etc. While goods were used for payments or for trade, money was the preferred tender.

436 Soapstone beads 1/2 to 3/8 in. in diameter
324 and 1/8 in. or less long, with a 1/16-in. perforation, were "made in a belt" and traded for a basket, said M. M. had ten such beads she had found on the ground around Picayune. She did not know how they were made, but claimed they were native. (Perhaps these beads were worked into belts like those of Yokuts to the south; perhaps however, M. really meant strings of bead money. -- A.H.G.)

276 Tobacco.---Old people watched for the tobacco plants to ripen. When full grown but still green, the leaves were gathered, dried out somewhat; it remained a greenish color. The leaves were stored in a dry place, a little being taken out to smoke as wanted. "It smelled pretty near like white [man's] tobacco," said J.R. A tobacco of sweeter variety than that at Coarse Gold was said to grow farther north.

Cakes of tobacco were made from the dried leaves, pulverized and mixed with water. These little biscuits were two or three inches across,

[115] An exorbitant sum, perhaps named in the hope that Thrall was going to buy. The impression is made that none
[487] of these informants knew anything about bead money. Their
439 statement that the obviously Spanish beads came from the ocean is entirely reasonable since that was the aboriginal source for all bead money, and Spanish beads came via the same trade route in native hands. -- A.H.G.

[P.229a] Western Mono NS25

W Y 482 [439]

were identical with that of the Wukchumni. The Eastern Mono used these nets when coming over on trading trips.

MONEY, NUMERAL SYSTEM

W Y 436 [439] 804

All money came from the west through the medium of trade. B.O. thought that the Tachi themselves made humana; the Waksachi retain the Yokuts name for this slender tubular bead. They were valued at about twenty-five cents each according to B.O.; S.O. said they came about ten for one dollar, or eight if they were extra long. The small clamshell discs (močo´ko) were measured Yokuts-style around the hand and wrist (fig. 14, e, f, Pt. I). This length was then doubled and called a muke´č:t, and valued at about two dollars according to B.O. S.O.'s evaluation is wholly different, five cents for once around the hand and doubled (1 mukeč:t), ten cents. This is more in line with other statements. B.O. may have had the looped-up arm's-length unit in mind.

When red and blue European beads were introduced, these were measured by the handful, the red being more esteemed. The red ones were called piša´kono´gidi, the blue ones šil:´mkai in Waksachi.

W Y 192 802

Numerals (Michahai, S.O.)

1. y:t	15. y:´čum
2. pu´noi	16. čo´lpum
3. so´p:n	17. no´mčum
4. hatpa´na	18. mu´nčum
5. yit:´šn:l	19. no´npom
6. ču´lipi	20. punoi´tsi'ao
7. no´mč:n	21. punoi tsi'ao y:t
8. mo´noš	22. punoi tsi'ao punoi
9. no´n:p	23. punoi tsi'ao sop:n, etc.
10. tsi'a´o	30. sop:n tsi'ao, etc.
11. y:´čam	100. y:t pi´ča
12. po´ctom	1000. tsi'ao piča
13. co´yum	
14. ha´čpan	

PLEASURES

Games

W Y 526

The following games were played by the Waksachi.

Shinny.--This game (koniu´šiko, Michahai; nanata´kow:t, Waksachi) was played with a hole at one end of the field and a post at the other. The ball had to be holed five times, though not successively, in order to win. When the ball was struck to a partner down the field and did not reach him, he had to come down the field to get it (i.e., the striker did not go after it).

W Y [525]

This was the favorite game for betting and side betting. Usually three or four men played on a side. There was no special way of choos-

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

scalp celebration or victory dance. It can accordingly be concluded that scalping customs were of relatively little moment in Yokuts life.

MONEY.

Ordinary money consisted of strings of shell disks, of the wampum type, *keha*. During the past hundred years the Yokuts derived at least part of their supply of this currency through visits to the ocean. It is uncertain whether such trips were made in purely aboriginal times. The unit of measurement in the north was the *chok*, one and a half times the circumference of the hand. In the south the *chok* was somewhat shorter, and was reckoned as half the *hista*, two times the circumference of the hand.

Long perforated cylinders, perhaps made from the columellæ of univalves or from clams of unusual size, were called *humna* or *humana*, and were exceedingly valuable. They came from the south, probably from the Chumash.

GREETINGS.

There was little or no handshaking before the white man introduced the custom. Kissing was another undeveloped greeting. Mothers kissed their children, and lovers each other in seclusion; but no one else. The usual greeting is *hileu ma tanin*, "where are you going?" An old form, now less used, is, in foothill dialect, *ma-wit hide*, "you, hello"; more literally, "you, where?"

Like some other Californians, the Yokuts call the years "worlds." *P'a'an tanehi*, "world went," denotes the lapse of a year.

BIRTH.

A woman about to give birth sat on the ground grasping a stake set up before her. At the moment of parturition she was raised by an assistant who grasped her from behind. The umbilical cord was tied with one of the mother's hairs, and severed with a knife of cane or elder wood, according to locality. The Chukchansi buried the cord; the Tachi preserved it by having the child wear it over its abdomen.

Husband and wife were under equal restrictions after the birth of a child. They ate no meat or hard food, and did not cook, hunt, work, or touch tools. The Yokuts attached the greatest importance to these observances, some of which were continued until the remnant of the cord dropped from the child's navel, and others for several months.

The monthly condition of women—which was thought to be connected with the dark period of the moon—was viewed with less scrupulous abhorrence by the Yokuts than among many tribes.

3: Latta-Y-5 (1923-1948)1949 NS29 Yokuts NS29
Wukchumne

123 438 484 Dunlap. None of them seemed to hurry, but with a few soft, murmuring Yokuts words they faded into the car.

At Dunlap we entered the gate of the first Indian camp. I expected them to finish their trading in a few minutes, so we could return to the Kaweah in short order. Although they [574] hurried from the car to the house, I noticed that the sack of hupud and the large bundle of chawkish were left in the car. They visited a few minutes, exchanging news of all the friends and relations. Then Ada grunted and we all trailed back to the car. On we went to another place, where the performance was repeated. I was impatient at this, as the afternoon was fast slipping away. I saw that I would probably be late for that dinner engagement, but I knew better than to say anything.

At the third place we had no more than entered the house than Ada grunted. Letha ran out to the car and carried in the basketry materials. The trade was soon made and in less than five minutes we were on our way back to the Kaweah.

On our return I asked Ichow why Ada had not traded at the first places we visited. He explained that those first people had their bundles of hupud made up too small. I remembered that bundles of hupud were hanging on the walls of the houses, but, until Ichow mentioned it, I had not observed that they were smaller than Ada's bundles. All the way home Ichow and Ada tried hard to explain to me how trading was carried on between the Yokuts tribes and how their bead money was used in connection with it.

436 438 According to Ada, bundles of cladium root and redbud wood were made up the same size. But sword-fern root was made up about two-thirds as large. Because, as Ichow translated, [484] "They had to travel a long way to get it and it had to be colored."

[195] Ichow, prompted by a few soft murmurs from the rear seat, explained at great length—great length for a Yokuts—how important it was to have everything put up in the right size. Here is one of his statements. "In them old days them old people don't got scales to weigh with, don't got yard-stick to measure with. They make that black paint all into same size [804] balls, not so big as your baseball. My old grandpa, *Che'-chis*, trade some balls that black paint for some balls white paint when I was a little boy. I see him do it. Both kinds paint they trade was in same size balls."

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

436
804
516

Yokuts bead money and three types of measurement used by various Yokuts tribes to denote one Chok, or unit of money. At the left is shown the measurement extending around the hand. At the center is the measurement extending from wrist to fingertips. At the right is the measurement around the hand foreward of the thumb. The Indian woman at the left is wearing strings of bead money around her neck and in her hair.

436
804
184

Between the Wukchumne, *Pahdwishi* and *Kaweah*, the *Chok*, or unit of measurement of bead money—in other words, the Yokuts dollar—was the distance around the hand, measuring just outside of the thumb. Among the *Telumne* (Tay'-lumne), distant only twenty miles from the Wukchumne, it was the distance from the tip of the longest finger to the first wrinkle in the wrist. Incidentally, these two distances are almost equal. Some of the Yokuts tribes measured the chok around the rim of the hand. Ichow explained that in such cases the hand was placed flat on the ground and the beads measured around the hand from the last joint of the thumb to the last joint of the little finger.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

438 Said Ichow, "When you trade with them people, you got
436 to know how much in their chok. You measure their chok and then you figure how much it is worth beside your chok."

435 In the old days one Wukchumne chok of beads of low value
438 would buy twenty bundles of hupud or ahnup. A half chok of average shell beads would buy twenty bundles. Ichow explained how the half chok was measured: "You double the string
[804] after you measure one chok." Two shell beads of low value would buy one bundle of basketry materials, or one tanned deerskin. Ten average beads would buy one tanned elk skin or two tanned antelope skins.

436 From *Yoimut*, an aged *Chunut*, from *Pahmit*, an aged *Dumna* (Doom'-nah) and from other Yokuts, I learned that both asphaltum and paint of various colors in standard pack were also traded and sold for money throughout Yokuts territory. This standard size is uniformly described and approximates a size midway between that of a tennis ball and a baseball. Their statements were substantiated by archaeological remains in widely separated portions of Yokuts territory.

436 When the Smithsonian Institution expedition of 1937 ex-
172 cavated the old *Tulamni* Yokuts village at the east point of the Buena Vista Hills in western Kern County, a number of balls of asphaltum were recovered. They were almost exactly the size described by my informers. Some appeared to have been wrapped in tules or in rabbit skin strips. This can be appreciated when one takes into consideration the stickiness of asphaltum. I also recovered similar balls of asphaltum in Indian cemeteries at Alamo Solo in southwestern Kings County, and at the Sweet Mound, about four miles southwest of Waukena in western Tulare County.

It is of interest to note here that Wahumchah states that
[201 these balls of asphaltum were burned by the Yowlumne to pro-
372] vide the black smoke for sending smoke signals.

At the Menjoulet Rancheria on Los Baños Creek in western Merced County I found two "standard pack" balls of red pigment and one of white, also several crude chunks of the diatomaceous earth from which the white pigment had been prepared. The balls of pigment showed the finger prints of the person who had formed them. In the Broder Mound (west center of Section 31, T18S, R26E, MDB&M) I recovered from disturbed burials one standard ball of black pigment, probably made of burned graphite taken from the old Yokuts diggings